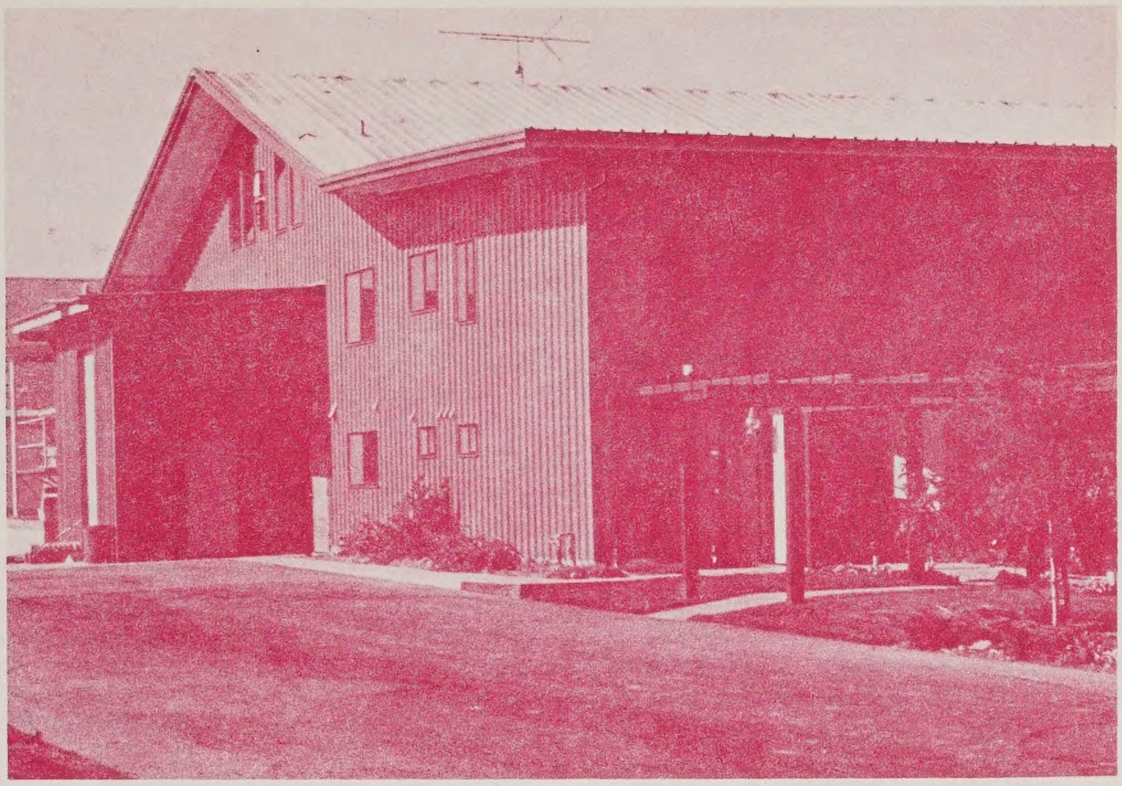
Practical Winery

TECHNICAL NEWS FOR THE WINEMAKER

January-February 1982



Wine Industry Technical Seminar Coming January 22-23

Production Notes on '81 California Nouveau

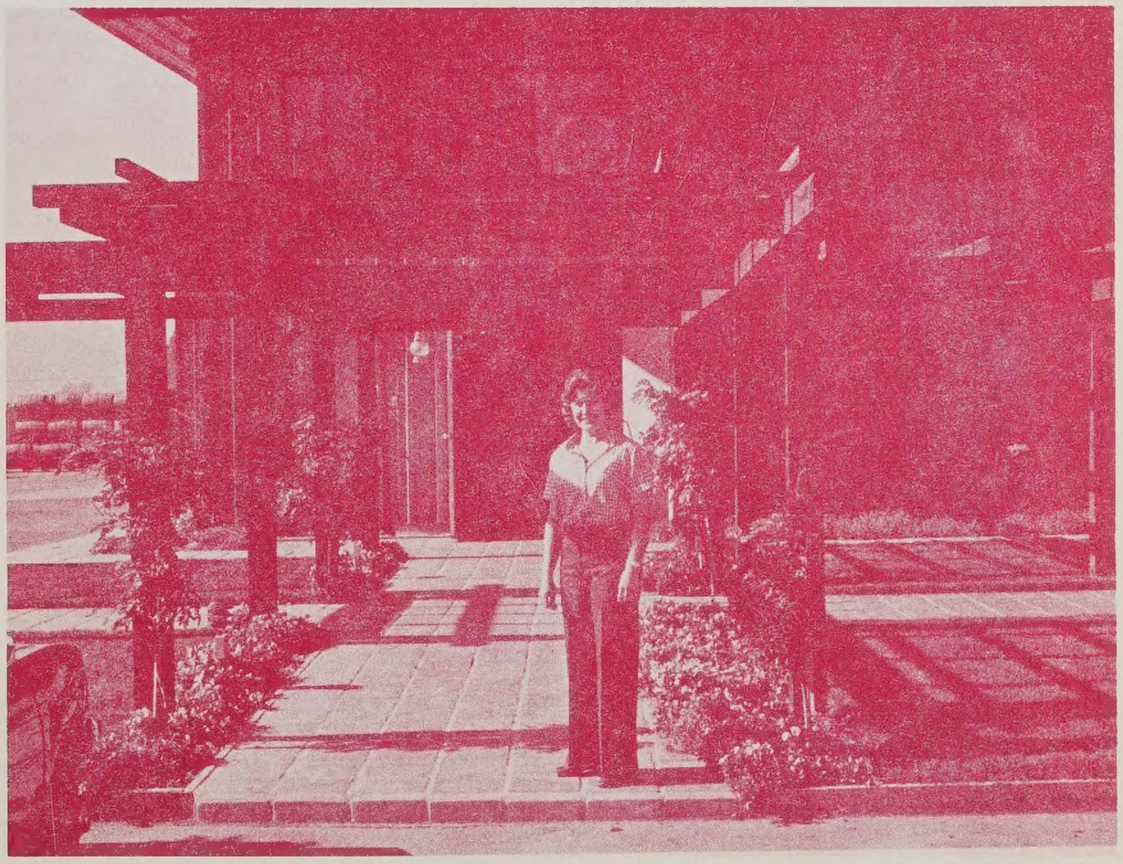
Who Uses Computers in California Wineries?

Winemakers Explain Advantages of the Tank Press

Ray Krause on Marketing for the Small Winery

Who Uses Portable Bottling Lines?

Up-to-Date Construction Techniques at Jekel



TECHNIQUES • EQUIPMENT • EDUCATION • MARKETING

PAST ISSUES

Practical Winery is based on useful articles and comment, it does not become useless as the calendar pages turn. We have the pleasure of offering the following back issues at a cost of $5 per copy.

VOLUME I, NO. 1
Interview with Josh Jensen of Calera Wine Co.
Francis Mahoney of Carneros Creek
Sugar Determination via the Rebline method
Cleaning up the Refrigeration System
Many Practical Ideas

VOLUME I, NO. 2
Interview with Jed Steele of Edmeades Vineyards
Ken Burnap of Santa Cruz Mountain Vineyards
SO_2 via Iodide-Iodate
Principles of Depth Filtration
Polyethelene Tanks
Robert Pecota on saving energy

VOLUME I, NO. 3
Interview with Jim Lawrence of Lawrence Winery
SO_2 via Ripper method and Platinum Electrode
Tartrate Stability
Practical Ideas of Arterberry Ltd.; Carey Cellars
Bruce Rector on Wood

VOLUME I, NO. 4
Interview with Richard Keene of McDowell Valley Vineyards
Enzymatic Wine Analysis
Acid Reduction by Jed Steele
Pumping Over
Enzymatic Wine Analysis

VOLUME I, NO. 5
Interview with Bob Rodgers of Custom Cooperage
Safe Production and Use of Liquid SO_2
History of Nouveau Production

VOLUME I, NO. 6
Interview with Anthony Claiborne of Rico's Winery, New Mexico
Fining Wines in 1888
Practical ideas of John Kenworthy

VOLUME II, NO. 1
Interview with Doug Meador and Ken Wright of Ventana Vineyards
Basics of Depth Filtration, Part I
Filter Media Cross-Reference Chart
Oliver Kilham on Wine Filtration
Purchase and Use of a Centrifuge

VOLUME II, NO. 2
Interview with Mike Miller of Moon Valley Circuits
Basics of Depth Filtration, Part II
Elastomers
Preliminary report on the Tank Press

VOLUME II, NO. 3
Interview with Scott Harvey of Santino Winery
William Ghiglieri of Turner Winery
Hydrogen Sulfide
Plastics
Wastewater Cleanup with Water Hyacinths

VOLUME II, NO. 4
Interview with Dave Cordtz of Cordtz Cellars
David Coleman of Adler Fels
Greg Bruni of Arroyo Sonoma
Construction of Fritz Cellars

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MISCELLANEOUS WINERY SUPPLIES
YEASTS
CHEMICALS

Practical Winery
January-February 1982
Volume II, No. 5

On the Cover:

Jekel Vineyard built a double metal skin "barn" that looks like a winery. Mrs. Bill Jekel greets visitors on the trellised walkway leading to an antique-decorated tasting room.

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172 New California Wineries in Four Years!

Winemaking is definitely a growth industry in California!

In the past four years, 172 wineries have been bonded, according to the Bureau of Alcohol, Tobacco and Firearms (BATF).

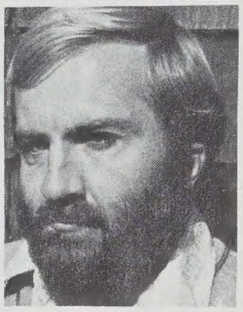
As might be expected, Sonoma and Napa Counties led the pack with 36 and 38 bondings respectively. Napa's growth shows three new wineries in 1978, recorded a high of 17 in 1979, slowed with 11 in 1980, followed by seven in 1981. Sonoma's growth curve shows: one in 1978, 13 in 1979, a peak of 14 in 1980, and eight in 1981.

Filling out the top ten in the four-year growth study were: Mendocino, 14; San Luis Obispo, 12; Santa Clara, 10; Riverside and El Dorado, seven each; Santa Barbara and Marin, five each; Santa Cruz and San Mateo, four each; and Alameda, three.

Thirty counties in all, have new wineries since 1978. 1980 saw a peak of 60 new wineries, a 500 percent increase over 11 bondings in 1978. In 1979, 59 wineries emerged, and as of November 1, 46 wineries have been bonded in 1981.

During the same four year period, 13 wineries were bonded in Oregon and 11 more started in the state of Washington.

FREE RUN
OF THE EDITOR
— DON NEEL —



Allow me to introduce myself as the new editor/owner of Practical Winery, effective this issue. I have a degree from Cal Poly-San Luis Obispo in Printing and Journalism which will help me to produce this publication.

About 1975, I took a wine appreciation class from Jim Olsen, now winemaker at J. W. Morris in Concord, California. I went to more and more tastings and wineries. I joined Les Amis Du Vin in 1980 as I became more interested in wine.

Meanwhile, to support this hobby, I was manager of a paper recycling plant in the San Francisco bay area. Before the 1981 crush, I left paper recycling and looked for small wineries to work at during the crush. I found four, and got dirty! I learned a lot while crushing, pressing, bottling, moving barrels, bottles and wine.

I enjoy production work, always trying to find a better way to get the job done. With the encouragement of Bill Mabry and Paul Obester, I met Tony Norskog, and Tony sold me Practical Winery.

In the spirit of finding better grapes and making better wines in the future, I hope to provide a source of information for the winery that produces up to 100,000 cases, the target audience of Practical Winery.

I look forward to interviewing winemakers with new or different ideas as well as technical support people who deal with wine problems. Practical Winery will never get old, the information will still be applicable and practical years later.

Please feel free to send in any practical ideas or questions for potential stories. Practical Winery is here to serve the winemaker in California and across the United States.

I hope I get the opportunity to meet many winemakers and support people all over the country and help transfer the technology. I look forward to meeting many of you at the Wine Industry Technical Seminar at Santa Rosa in January, 1982.

Technical support people are invited to inquire about advertising, we want to let the winemakers know who you are!!

We are recycling the publication to best serve the reader on a calendar basis. Issues will be placed in distribution by the 20th of the month preceding the cover date.

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Winemakers Explain Advantages of the Tank Press

Practical Winery went to the cellars of many California wineries after the 1981 harvest to update our recent story on the tank press. There are four manufacturers: Willmes, West Germany; Bucher-Guyer, Switzerland; Sipren, Italy; and Valley Foundry, Fresno, California, U.S.A. Comments on the enclosed membrane press by winemakers follow:

ARROYO SONOMA, *Greg Bruni:* "We received the first Willmes TP3 in the USA before the 1980 crush and put 840 tons through it that year. We added a drain tank above the press this year and processed 1,010 tons. The press cleans easily and reduces abrasion on the grapes."

BOUCHANE, *Bo Martinelli:* "We bought a 4,500 liter Bucher-Guyer before this crush and pressed 800 tons this year. We will add one more tank press before next crush."

CHATEAU ST. JEAN, *Dick Arrowood:* "This was our first crush on a Willmes TP8. The tank press is really close to perfect, giving us greatly improved efficiency in handling of fruit. I think our juice yield went up seven percent over our bladder presses and solids were reduced 20-30 percent.

> *'The tank press improves the quality of juice . . . you get a more complete wine.'* — **Walter Schug**

"The machine was invaluable in this hectic crush. We pushed 100 tons through the press in two consecutive eight-hour shifts. We still have two 2,300 liter and one 1,000 liter bladder presses for smaller lots."

GRAND CRU, *Bob Magnani:* "We rented a Bucher-Guyer RPM 25 for the 1981 crush and are now purchasing a RPM 45 to replace our Willmes bladder press. We got good clean juice, 160 gallons/ton on white and almost 170 gallons/ton on Cabernet.

"The solids were reduced to 25 percent of previous pressings. The juice was almost good enough to bypass the centrifuge before fermentation. The tank press cleaned out like a dream. Our first priority for the tank press is to handle whites. If the winery were to expand, I don't think we would get another tank press just for red fruit."

McDOWELL, *George Bursick:* "We just completed our third crush on a Willmes TP6 and have ordered an additional Willmes TP8 for next year. We really like the cleanliness of the machine. With only one and one-half atmosphere pressure, we yielded 190 gallons/ton with Sauvignon Blanc! The highest solids we have ever seen, was five percent on one batch this year. We use the centrifuge very little before fermentation, thanks to the tank press."

> *'The tank press is a tremendous improvement over the older bladder press in terms of quality control!'* — **Phil Baxter**

ROBERT MONDAVI, *Paul Hobbs:* "This was our first crush with the Bucher-Guyer RPM 100 which handled 15 ton loads for us. Our first priority for the tank press is to reduce the bitter character in Riesling, and we believe we succeeded. The final press juice had lower phenolics than juice from the first sump in our COQ screwpress.

"The press achieved our second priority of delivering much better quality in the Muscat juice. We pressed botrysized batches of Riesling as well as Sauvignon Blanc without going through the crusher-stemmer beautifully. For the champagne cuvee, we pressed the Pinot Noir and Chardonnay — stems and all, and it worked great.

"The press cleans and sterilizes real well. Very little can go wrong with the press, and it reduces the use of the centrifuge. Chardonnay and Sauvignon Blanc finished with two percent solids. We averaged about 175 gallons/

ton. There are many ways to program the unit, we have a lot yet to learn about the potential uses."

JOSEPH PHELPS, *Walter Schug:* "We obtained our first Willmes 2500 liter tank press in 1978, and a second unit the following year. We are presently considering upgrading to two larger models. They eliminate the need of an automatic strainer ahead of the centrifuge, and the juice goes through the centrifuge a lot faster.

"The tank press improves the quality of juice, eliminating the practice of keeping press and free run juice separate — you get a more complete wine!! If your production schedule allows, you can use the tank press as your vehicle for skin contact time before pressing, and eliminate two handlings of the juice."

> *'We got good clean juice. The tank press cleaned out like a dream.'* — **Bob Magnani**

RAYMOND, *Walter Raymond:* "We added a 6,000 hectaliter (hl) Willmes tank press this year beside a 2,500 hl Willmes tank press we have used since 1979. A Siprem unit arrived for a trial, but only after 80 percent of this year's crush was completed, so it gave us very little comparison. We want to upgrade our smaller press. We put 20-25 tons each of red and white fruit through the Siprem.

"The Siprem loads from the end and allows us to rotate the drum while loading for better distribution and more juice drains off before pressing. We get a more continuous flow, I like the Italian design and we will give it more trials next crush."

RUTHERFORD HILL, *Phil Baxter:* "This was our first crush on the 12,500 liter Bucher-Guyer RPM 125, their largest model. We wanted this size press, which is not available in other bladder designs. The tank press is a tremendous improvement over the older bladder press in terms of quality control! Phenolics were significantly lower on whites.

"We crushed 2,000 tons this year and are aiming toward 3,800 tons in a couple of years with the addition of another same size tank press. We are still using some older bladder presses to help handle the current production. The tank press control system offers more consistency and permits variability by the winemaker for the individual varietal and maybe different vineyards."

SIMI, *David Ramey:* "This was our second crush with the eight hl Willmes. We are going to replace our two Vaslin plate presses with a 10 or 12 hl tank press for the 1982 crush.

"We like the ease of operation; one person can fill, operate, empty and clean the unit. The reds have shown statistically — lower phenolics and higher anthocyanims, the wine is less bitter."

ST. FRANCIS, *Joe Martin:* "We replaced a plate press with a 2.5 liter Willmes this crush and got cleaner and higher juice yields. On Chardonnay, we yielded 175-180 gallons/ton instead of 145-150 gallons/ton on the old unit. Sauvignon Blanc yielded 185-190 gallons/ton and Gewurztraminer averaged 168 gallons/ton. We custom crushed 100 tons of Pinot Noir for champagne and yielded 120 gallons/ton."

STONY RIDGE, *Hank Schneider:* "The 15 hl Siprem arrived for this year's crush and worked along with our two rota-presses. The Siprem is great, the juice yield is up substantially. We will keep one rota-press along with the Siprem. By loading the Siprem from the end, we have the option of rotating the drum to achieve higher solids, or less solids by not rotating."

WENTE, *Eric Wente:* "Valley has custom built a 1,100 gallon prototype tank press for us. The unit is at a vineyard site in Greenfield to produce champagne cuvee and then we truck the juice back to the winery. The prototype is performing well but we are trying to perfect the screen pattern. We can cycle this unit faster than the European designs.

"We have improved loading and unloading by a jack system on one end to raise and lower the unit. We will debug the prototype again next crush and then build another model three times larger. The two presses will then be used for non skin-contact wines."

> *'The tank press is really close to perfect, giving us greatly improved efficiency in handling of fruit.'* — **Dick Arrowood**

Practical Winery found the Siprem water bladder unit being handled by Wine and the People, Berkeley, and The Compleat Winemaker, St. Helena. At press time, the exclusive Siprem distributor had not yet been chosen. Willmes is available through the Moffett Co., San Jose, and Bucher-Guyer is handled by SWK Machines, Inc., San Rafael.

Industry Seminar Coming January 22-23

Winemakers and vineyardists are invited to attend the eighth annual Wine Industry Technical Seminar to be held at the El Rancho Tropicana in Santa Rosa, California, January 22-23, 1982.

Charles Fournier of Gold Seal Winery in New York will receive the Leon Adams Achievement Award at a dinner on January 22. Previous winners of the award have been Louis P. Martini, Professor Vincent Petrucci of CSU-Fresno and Adams.

Proceeds from the Seminar after expenses go to a fund for research and teaching in viticulture-enology at University of California at Davis and California State University, Fresno. The fund has dispersed almost $8,000 during the last seven years.

Participants may register with Julius L. Jacobs, secretary at 46 Seventh Ave., San Francisco, California. Fees are: registration and lunch — $40; seminar transcript — $10; dinner plus above — $65. Exhibitors may reserve display space and attend the seminar for $125. The seminar committee does not handle hotel reservations.

Henry Schacht, farm columnist for the San Francisco Chronicle, will deliver the keynote address on public relations opportunities and demands in the wine business.

Employment of data processing computer systems in wineries will be discussed by the panel of: Charles Carpy, Freemark Abbey/Datavine; David Bennion, Ridge Vineyards; and Gerald Schreck, Schreck and Hradowy, management consultants.

Economics of winery operations, small, medium and large will be the topic of another panel. Speakers will be Dr. Kirby Moulton, agricultural economist of the U.C. Giannini Foundation; Rodney Strong, vice president-winemaker of Sonoma Vineyards; and John Wright, president of Domaine Chandon.

Application of genetic engineering in breeding superior grapes will be the topic of Professor Carole Meredith, University of California specialist in viticultural research.

Ed Friedrich, winemaker at San Martin Vineyards, and Sam Sebastiani, president of Sebastiani Vineyards, will speak on low-ethanol wines, their production and marketing.

T-budding of red grape varieties to white will be discussed by Perry Aminian, vineyard manager of Tejon Ranch and Herman Schwartz, Continental Vintners, Los Angeles.

Dr. Richard G. Peterson, president and winemaker at The Monterey Vineyard, will join a panel, unchosen at press time.

Who Uses Computers In California Wineries?

Practical Winery conducted a quick survey in November of 1981 and found over 30 California wineries using some form of computer service.

Datavine, located at Freemark Abbey Winery in St. Helena, provides data processing services for the St. Helena Cooperative Warehouse and over 20 wineries in the Napa Valley. They offer their customers one-day service on invoice processing and produce other reports either weekly or monthly.

The Napa wineries make use of the Winery Information Management System (WINS) offered by Datavine, on the Datavine computer (an IBM34). Customers may use any part or all of the services of Datavine and pay accordingly. Most of their customers deliver input data to Datavine on paper by hand delivery or mail and receive the same way.

WINS helps wineries with their accounting functions. They offer a bulk wine inventory program that can assist a winemaker in the cellar. In 1982, they hope to have a crush record system ready for their clients. Datavine was started by Freemark Abbey in 1978 and took on other customers in 1979.

Richard Gulson, of Richard Gulson & Associates, has put WINS into another Napa winery with its own IBM 34 computer and developed and tested a harvest processing system for the winery which is now available to other potential clients. Gulson also has placed WINS at three wineries in Sonoma, one in San Luis Obispo County and one each in Alameda and Santa Clara counties.

Data Consulting Associates has a Bulk Wine Management System (BWMS) available to put on a winery's computer. The system can assist a winemaker with eight programs for his record keeping.

BWMS can be integrated on one IBM 34 with WINS and on the IBM 23 in 1982.

Richard Hoover of Datamasters Computer Services, has developed a winery control package for a Sonoma winery who has a terminal plugged in to Hoover's computer. The package was made to assist the winemaker and accounting functions have been added. Access to the system on Hoover's computer will be available to other wineries in early 1982. Hoover began developing this system in 1979.

Doug Moore of Almaden's champagne department showed Practical Winery how they had replaced their tirage and bottling lines with new equipment and an Allen Bradley control system. Almaden reduced its manpower requirement to one-third and almost doubled the productivity.

Almaden imported German and Italian bottling equipment, removed the electrical system and put in their own controls with their own personnel. The whole project began about two years ago and was completely installed in the spring of 1981.

The old bottling line was pulled out and completely replaced and up and running in just about two months. The line can handle six different size packages and requires a shift to change over. At a minimum, the line will usually run one size package for two weeks on at

continued on page 11

WINE MARKETING

How Practical the Small Winery?

BY RAY KRAUSE

This article begins a regular feature on marketing to be written by experts in the wine marketing field.

The "practical" winery defined is that which can be accomplished in fact *rather* than *specualtion.* With one new bonded winery a week for the past three years one cannot but question how non-speculative this growth can be?

Is it not somehow reminiscent of the over-planting of red grapes in the early 1970's?

When will we begin to feel the oversupply of small wineries? Most marketing people know we are feeling it now and that it will be three to five years before a leveling of supply and demand occurs.

Whether your winery is built with accumulated dollars, borrowed funds (perish the thought) or monies which would have otherwise found their way into Uncle Sam's pocket, it's safe to assume that you envision a self perpetuating operation at the very least.

In these times when the small investor can make 20 percent plus return on short term money market investments there is more than just a hint of incredulness when we speak of the profitability or practicality of the small winery.

As wine market developers, we address only one aspect of the practical winery; that of income.

Whereas, the "new kid on the block" syndrome may well care for a new winery's *sales* needs for one to three years, only well planned and executed *marketing* will assure longevity and profitability.

Other alternatives are to establish your brand as (1) the absolute best of type or (2) the least expensive or (3) the most heavily advertised.

We have also witnessed the less than successful attempts of several large and financially able companies who have tried to substitute dollars for talent.

Sales is but one function of proper marketing which establishes a reputation and keeps a brand sold. Good product quality is a great assist in bringing a wine to market but it cannot guarantee ongoing success in so subjective a market.

Some points worthy of serious consideration are:

PACKAGE: Design a package, not a label. Hire the best designer you can afford and send your work to a printer whose work you've examined. Be consistent in your graphics from label to letterhead.

PRICE: In pricing, know your exact costs as well as competitive averages and standards. Understand out of state tax and freight rates and markups. In setting a price consider future cost increases and try to keep raises to at least once a year.

PROFIT: Be profitable on every item. It's a given that you can't pay $500 a ton for red grapes for a blanc de noir which nets $24 a case. Volume will never make up for non-profitability.

We recommend retaining a marketing or "primary sales" agency for the same reasons you would hire an accountant, viticulturist, oenologist or engineer. A marketing agency's responsibility is not merely as route broker or consultant, but a combination of these and other functions as listed below:

Wholesale Distributon in the U.S./U.K./Canada
Sales to retailers (California and out of state)
Selecting and managing brokers
Chain grocery sales in the Western states
National chain restaurant presentations
Custom blends and private label
Advertising (Printed and Electronic)
Media/Publicity
Packaging and gift items
Government compliance (federal and all states)
Pool shipping
Production guidance
Point of sale and display
New product development
Vineyard planning (not planting)

For maximum exposure and the best account service we also recommend the so called "three tier" system. We see it as a "five tier" system as follows:

1. Producing winery.
2. Primary sales agency.
   a. Area route brokers
   b. Direct sales representatives
3. Wholesale Distributors.
4. Retailer/Restauranteur.
5. Consumer.

This system returns about 40 percent of the suggested consumer bottle price to the winery.

Interesting enough, many wineries who are shipping direct to retailers in California are netting less than this amount after paying for salespeople (brokers), warehousing, samples, freight, discounts and management overhead.

Many wineries who are not observing the 50 percent of consumer price F.O.B.'s for out of California sales are experiencing the disappointment of their wines being grossly overpriced with sluggish movement after the initial pipelining.

I think it's safe to say that the level of sophistication and development of our California wine marketing techniques shall, with time and attention, parallel our lofty achievements in viticulture and winemaking.

Skillful and permanent marketing is, after all, the last essential link in the supportive chain of the "practical winery".

(Ray Krause is president of Ray Krause and Co., providing wine market development with offices located at 4905 N. West Ave., Suite 105, Fresno, California 93711; (209) 229-9463.)

Production Routes to 1981 California Nouveau Are Diverse

Many different production techniques utilized different varietals from Tulare County in the south, to Sonoma County in the northern most appelation, in 1981 California Nouveaus.

Most are red, some are fermented warm, some cold, and some saw wood. Nouveau in the French tradition means one of two things — release by November 15 of the harvest year for consumption, or fermentation by carbonic maceration. All of these wines were ready on or about November 15, if the harvest gave the winemaker enough time to do his work.

Two wineries, J. Lohr and Charles F. Shaw, use carbonic maceration in Gamay wines, but are not released until much later, to achieve their desired styles.

All of these wines were poured at the KQED Annual Wine & Food Festival in San Francisco, Saturday, November 21, in a preview of the 1981 crush and were matched with foods prepared by Bay Area restuarants.

BERKELEY WINE CELLARS

Beaujolais Style Pinot Noir

180 gallons were made from Pinot Noir grapes grown at the Buena Vista Vineyard in the Carneros Creek area. The grapes were harvested on August 28, earlier than last year, at 23.0 brix and .78 acid.

Carbonic maceration took 13 days, the grapes were then crushed and stemmed and pressed at 2 brix and the wine went into french oak for seven weeks. The wine was sterile bottled at 13.0 alcohol on November 10 for release on November 15.

Due to the harvest, the winery used more of the same grapes for their traditional Pinot Noir, which will make for interesting comparisons of the two wines next year. The winery's first Pinot Noir Nouveau was made in 1980 from a different vineyard and harvested at 21.7 brix, closer to the winery's desired harvest goal.

CACHE CELLARS

Carnelian Nouveau

Charles Lowe, winemaker/owner, began his third vintage on September 6 with grapes from the same Woodland vineyard picked at 22.5 brix, .93 acid and 3.3 ph. 185 cases of wine were bottled.

Lowe began his ten day carbonic maceration by inoculating with champagne yeast. The grapes went through the crusher/stemmer at 13 brix and the juice stayed with the grapes overnight for additional time to collect color. The grapes were pressed and the juice put into stainless the next day. Lowe did a light bentonite fining to remove unstable colors before bottling.

CHATEAU NOVEAU

Gamay Beaujolais

The only wine that Jack Clark and partners make, the grapes were harvested from partner — Jay Corley's ranch on Fig Ranch Road in Napa Valley on August 25 with 23.7 brix and .89 acid. 1981's production of 678 casses almost doubled the first vintage of 1980 of 350 cases.

Tom Cottrell, the winemaker, conducted carbonic maceration for 10 days at 47-48° on the Gamay Beaujolais grapes. Free run juice was drained off, and the must pitchforked into the crusher-stemmer. The grapes at 7-8 brix were then pressed. The light pressing juice was added to the free run, but the last 100 gallons of hard pressing was not used The wine returned to stainless to complete fermenting to dry in two weeks.

The wine was bottled October 26 after filtering to clean up the wine and prevent malolactic fermentation in the bottle. Clark reports the 1981 harvest was 3½ weeks ahead of 1980, and the wine has more acid last year due to the long cool growing season. The 1981 wine is lower in alcohol and is more balanced, Clark adds.

The partners are making the wine in leased facilities while looking for a permanent home in which to make 5000 cases in 1985. They will only make the one wine and are looking for more grapes with high acid from cool areas.

R & J COOK

Nouveau Gamay

1981 is the first vintage and the 1000 cases were made from Napa Gamay grapes grown in Cook's Delta Vineyards near Clarksburg. The September 22 harvest at 22 brix and .78 acid was 2-3 weeks ahead of the typical harvest date.

Cook's goal was a 50-50 blend of carbonic maceration and traditional fermentation, however, due to tank space to handle the grapes, only 25 percent went through carbonic maceration. The traditional batch which was machine harvested, sat on the skins for five days to get color and then were pressed for fermentation.

The traditional and c-m batches were blended together and malolactic fermentation occurred and the wine was cold stabilized and then bottled November 4 at 12.1 alcohol. Cook uses more of the same grapes in a traditional Gamay and a varietal red.

DONNA MARIA VINEYARDS

Vintage Premiere

Charles Illgen, winemaker, reported a production of 800 gallons from Sonoma County Pinot Noir grapes harvested at 22.2 brix and .93 acid on August 25.

The same vineyard was picked four days later at 23-24 brix for a traditional Pinot Noir by the winery. Carbonic maceration took nine days, and the grapes were pressed at 3.4 brix. The wine went dry in cold fermentation and saw French Oak about three weeks and was cold stabilized. Malolactic fermentation was completed before the wine saw wood.

This was Donna Maria's first Nouveau and only the second release of the new winery. "We handled it like a white wine, it will be a little heavier body with richer, deeper color than the traditional Beaujolais style." said Illgen.

FRICK WINERY

Pinot Noir Nouveau

Bill Frick, owner/winemaker, picked Pinot Noir grapes for his first Nouveau in the last week of September in Monterey County with 23 brix and 1.1 acid.

Frick returned to the same vineyard 2-3 weeks later for grapes for his traditional Pinot Noir at about 23.5 brix. Carbonic maceration took 13 days, and the grapes were pressed at 5 brix. the wine was moved to French Oak for four weeks while fermentation finished.

The wine was not cold stabilized and yielded 250 cases with 12.7 alcohol. "I am anxious to make the wine again next year," Frick said.

GIUMARRA VINEYARDS

Gamay Beaujolais Nouveau

This is the fourth vintage in which Giumarra used a Gamay grape from Tulare County which was harvested this year at 21.5 brix. More grapes from the same vineyard go into Giumarra's traditional Pinot Noir.

Giumarra fermented the wine for 5-7 days between 65-75°. After two weeks of cold stabilization at 28°, the wine was bottled on November 12 for release on November 15 and yeilded 800 cases at 11.5 alcohol.

LA CREME VINERA

Experimental Pinot Noir

Rod Berglund, winemaker, has made about 100 gallons from Pinot Noir grapes harvested from Winery Lake vineyard at 23 brix and .96 acid. He split the lot in two halves, one to be fermented on the skins for three weeks. The other half was pressed and barrel fermented.

All barrels were French Oak and 5-10 percent Chardonnay was added to the final blend.

LAWRENCE WINERY

Gamay Nouveau

Jim Lawrence, owner/winemaker, has made 3000 gallons from the Pinor Noir grape in his third consecutive vintage. 1981 was harvested from the Ben Nacdio Vineyards on the Tepesquet Plains in Santa Barbara County on October 5, at 23.5 brix, .85 acid and 3.45 ph.

Carbonic maceration took 23 days at 45°. The grapes were pressed at 3 brix and completed fermentation in stainless steel. The wine did not go through malolactic fermentation and was bottled with 12.9 alcohol. Lawrence noted that this is a bigger wine than past vintages.

Nouveau Production Routes (continued)

LAWRENCE WINERY

Chardonnay Nouveau

Monterey County grapes were used by Lawrence for the first time in this, his second vintage. 2400 gallons were made from grapes harvested on October 12, with 22.1 brix and .845 acid.

Lawrence fermented the wine on the skins in stainless at 42-45° for 30 days. The grapes were then pressed and the wine centrifuged. Lawrence noted that last year's wine has become more interesting. "If the market enjoys the wines, we will continue to make them," said Lawrence.

MONTEREY PENINSULA WINERY

Gamay Nouveau

70 gallons were made of their first Nouveau, harvested on October 13, from Arroyo Seco in Monterey County with 17.5 brix, 1.14 acid and 3.10 ph.

The Gamay Beaujolais grapes were in carbonic maceration seven days. The grapes were pressed at 8.5 brix and finished fermentation in stainless steel. The wine spent three weeks in neutral oak and was fined with egg whites and filtered. The wine was bottled with 9.5 alcohol and did not go through malolactic fermentation.

MONTEVINA

Zinfandel Nuevo

Grapes were harvested in late August, instead of typical September 17-19. Jeff Runquist reported that carbonic maceration occurred over 7-8 days this year which has contributed to a lighter, fruitier style, than 1980 when c-m was 5 days.

Cold stabilization was done in one week at 29° and the wine was released November 7. Montevina has made Nouveau every year since 1974.

NEVADA CITY CELLARS

Harvest Wine

Nevada County grapes including Pinot Noir, Zinfandel and Mission were put together prior to carbonic maceration, which occurred over 14 days. The wine was pressed at 6 brix and finished fermentation in French Oak. The wine was fined with the whites of two Nevada County eggs.

60 gallons were made, some for the harvest celebration in Nevada City about November 15. Last year Tony Norskog, winemaker, used Grignolino in his first 'harvest' wine.

ROBERT PECOTA WINERY

Gamay Beaujolais

Pecota's fourth vintage was harvested on October 1 from Napa Gamay grapes on his Napa ranch with 20.5 brix and .75 acid. The 3500 gallons were in carbonic maceration for two weeks at 70-75°.

Grapes were 4.5 brix at pressing and the wine was chilled to about 55°, racked off the lees and rough filtered. Pecota used his brand new Bucher-Guyer tank press and pressed the grapes at ¼ atmosphere. The wine did go through malolactic fermentation but was not cold stabilized, and bottled with 11.6 alcohol.

The 1980 vintage had 12.5 alcohol, but did not achieve malolactic fermentation, as happened with the 1978 vintage. Both wines had higher acid and a lower ph.

RUTHERFORD HILL WINERY

Pinot Noir Nouveau

1183 cases were made of their third vintage Nouveau. The Pinot Noir grapes are hand picked into wooden lug boxes at the Curtis Ranch off Oak Knoll Avenue north of Napa at about 22 brix.

The balance of the vineyard is picked later at about 23 brix by mechanical harvester for the winery's traditional style Pinot Noir. In 1979, Phillipe Dupond, an intern from the Dupond family of France, introduced the carbonic maceration process to Rutherford Hill. The wine was bottled October 28 with 12.2 alcohol.

SEBASTIANI VINEYARDS

Gamay Beaujolais Nouveau

Sebastiani uses a later ripening clone planted in the Wooden and Gordon Valleys in Solano and Napa Counties west of Fairfield and plantings around Healdsburg. Harvest came very early this year, almost a month ahead of typical, and the grapes were picked at 21.66 brix, .72 acid and 3.42 ph.

The wine was fermented on the skins at 80-85° for 2½ days and pressed at 3 brix. Betonite was added for heat stabilization and the wine was cold stabilized at 28° for 2 - 2½ weeks. Some 10 - 15,000 cases were bottled on November 13 for release November 15, with 12.0 alcohol.

Paul Bergna, enologist, reported that the growers thought this harvest was better than average. Sebastiani has made the same varietal nouveau since 1972.

SHOWN & SONS VINEYARD

Chenin Blanc Nouveau

3000 cases were made in this second vintage of grapes harvested in Napa at 20 brix. Traditional fermentation was used to make a full fruity, young style wine, according to Chris Shown. The wine was bottled October 21 with 10.6 alcohol.

STONY RIDGE WINERY

Malvasia Bianca

This is a new style wine made with new techniques for Stony Ridge. The grapes were picked at 22 brix and .72 acid and pressed in the winery's new Sipren tank press to yield six percent solids. Then the wine was clarified in a high speed (7400 rpm) centrifuge to one percent solids.

The wine was fermented to four brix and centrifuged to stop fermentation. Sam Balderas reports that the new high speed centrifuge removed all yeast cells and effectively stopped fermentation.

Heat stabilization took two days and the wine was filtered and sterile bottled at 12 alcohol. 438 cases were made, and the winery hopes the market likes it.

Topics to be Covered In Future Issues Include

Barrel Racks

Corks

Heat Transfer

Laboratory & Instrumentation

Pressure Sensitive Label Printing

Tank Design

Waste Water Removal

Winery Computer Applications

Education

Equipment Notes

Marketing

Low Alcohol Wine History at San Martin, Sebastiani

Low-ethanol wine is the topic of discussion for Ed Friedrich of San Martin Vineyards and Sam Sebastiani of Sebastiani Vineyards at the Wine Industry Technical Seminar in Santa Rosa, California, next January 22-23.

Friedrich made his first low alcohol Chenin Blanc for San Martin from the 1975 vintage. With the 1976 vintage, Friedrich made a Monterey County Chenin Blanc, and a Santa Clara County Johannisberg Riesling.

Beginning with the 1976 vintage, a Santa Barbara County Gamay Beaujolais has been made every year at about 10 percent alcohol. In 1977, Friedrich found a San Luis Obispo County vineyard for Chenin Blanc and has repeated every year since at about 10 percent alcohol.

In 1978, Friedrich was instrumental in helping to lower the California law on alcohol content from 10 to seven percent. From the 1978 vintage, he made his only Zinfandel from Central Coast grapes at 10.3 alcohol.

Johannisberg Riesling was made at 10 percent in 1976 and 1977, but dropped to 7.5 percent in 1978 with Santa Barbara County grapes. 1979 and 1980 repeated from Santa Barbara at 7.2 and 7.4 respectively.

San Martin low ethanol wines are available only in 750 ml bottles. Sebastiani's Light Country White is sold only in 1.5 liter bottles.

1980 is the first vintage in this 9.3 alcohol wine from Sebastiani. The grapes for the wine were harvested at between 17-19° Brix. Sebastiani believes the wine's low-alcohol and refreshing flavors will generate a broad market acceptance. Sebastiani noted that one reason Europeans drink more wine per capita than Americans is that many more low-alcohol wines are available to them.

Computers

least one or more shifts, depending on production schedules.

Moore came from Canandaigua Wine Co. in New York, where he helped set up a blending system on a desk size Wang computer in 1975.

Ridge Vineyards, under Dave Bennion, has put some $30,000 into a Digital computer since 1978 to assist the winery in tracking sales: wholesale and restaurant, accounts receivable, inventory and the advance tasting program. They have not developed programs to assist the winemaker as of press time.

Marc Fogg Software has an integrated package of Interactive Cellar Records and Interactive Business Records on a CPM or MPM generic computer with a Touchpoint Terminal to offer wineries.

Marc Fogg, the owner, indicates the Cellar Records cover many facets of record keeping for the winemaker. The Business Records includes the traditional accounting procedures for the office. The system has been developed for a Sonoma County winery and Fogg hopes to be able to offer the equipment in early 1982.

Empty glass and empty cases are ready for wine at the end of Chateau's trailer.

Who Uses Portable Bottling Lines?

Practical Winery believes that portable bottling lines work and are the answer for many wineries' bottling needs. Below, are stories on the two systems operating in California and comments from satisfied users.

Portable bottling lines are just that — equipment on wheels. The winery is responsible for having all materials; glass and cases, corks, caps or foils, labels, nitrogen, CO2, water and waste water removal. The bottling line will provide the filter cartridges to fit the winemaker's requirements at bottler's cost. Glue may be provided by either party with advanced planning at winery's expense.

Prior planning for a bottling line setup is very important, including ordering of glass and the label to be printed. Both lines come with two or three operators but require a minimum crew of five and preferably several more people to complete the production line.

Both bottling lines offer sterile bottling but the wine must be ready when the line sets up. All stabilization and pre-membrane filtration must be completed. The lines are mechanical and well maintained but there are factors beyond the bottler's control which may cause inconsistent production.

Twelve hundred cases per day production is the minimum goal set by both lines and has been exceeded by each many times.

CHATEAU BOTTLERS

Chateau Bottlers has a 40-foot trailer that is contract hauled to the winery site and requires power supply from the winery of either 230V, 3 phase, 60 cycle or 460V, 3 phase, 60 cycle.

Chateau equipment includes: Biner-Ellison Feedomatic Air Cleaner with sparging cycle, Horix filling machine, Bertolaso Corker, six head Ottosick capsule spinner, Krones Rotina labeler and a millipore filtration system.

Below are comments from satisfied Chateau customers:

IRON HORSE VINEYARDS, Forrest Tancer: "Bottling is such an essential element of wine and Chateau provides me with first rate equipment. I don't have the space to tie up with a bottling line for use one month or less out of a year. We can't justify the capital for the equipment at our present volume and Chateau is efficient. We will bring them in for at least 1,000 cases per setup."

DOMAINE CHANDON, Gino Zepponi: "We bottle 10,000 to 20,000 cases of still wine per year at present and that volume doesn't justify purchasing change parts for our tirage line. Eventually, our marketing plan is to produce greater volumes of Panache and Blanc Nature, and we will get the parts, but that is a couple of years away."

PAT PAULSEN VINEYARD, Jamie Meves: "Chateau has bottled 1,600 and 2,000 cases for us. They had a lot more of their problems worked out on the second run. We plan to use them for the next several years, bottling 2,500-3,000 cases per setup."

SEQUOIA GROVE VINEYARD, Jim Allen: "Chateau has satisfied us and we plan to bottle 4,500-5,000 cases next year in one or two setups.

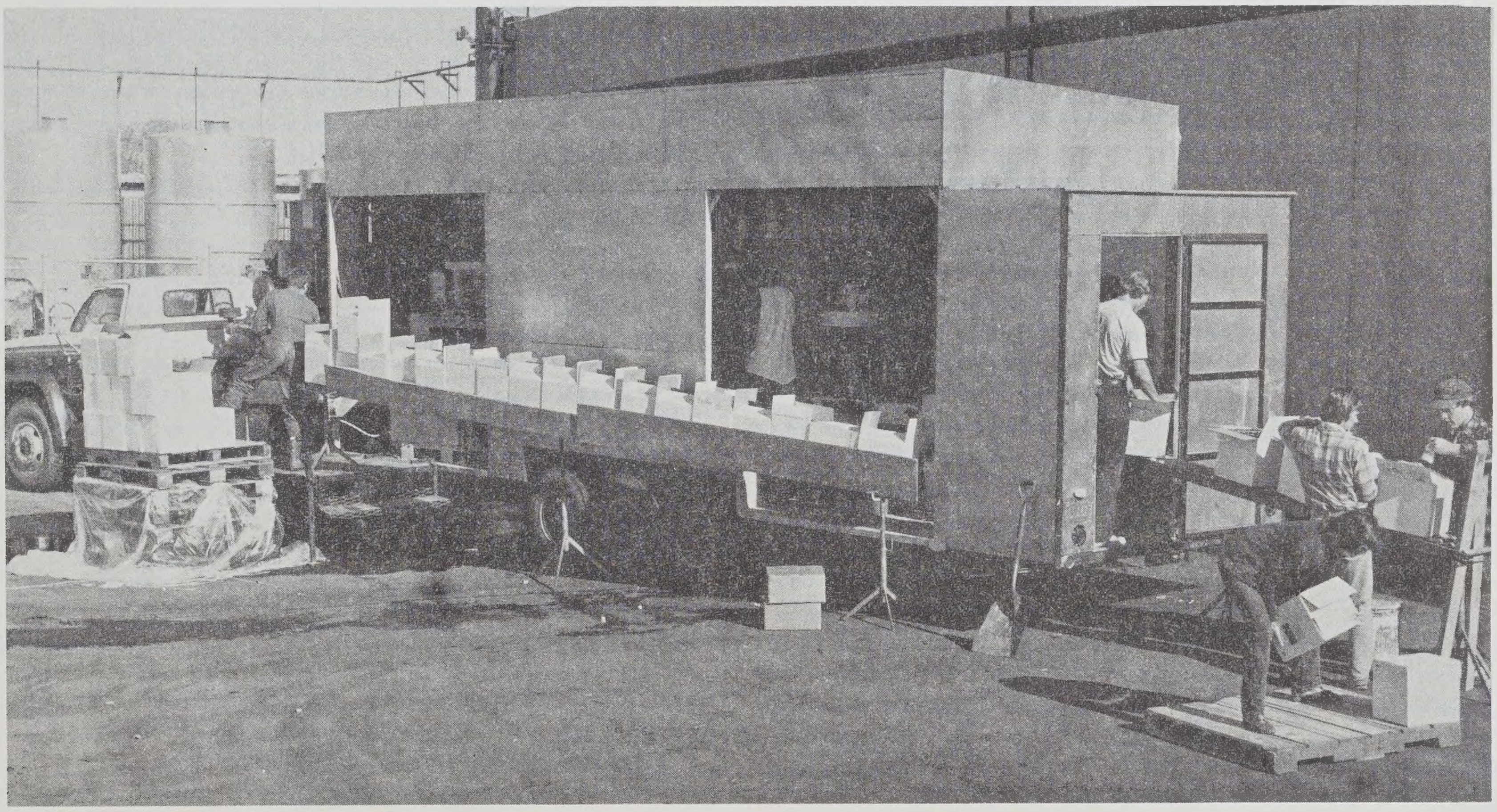
SHOWN & SONS VINEYARD, Tom Cottrell: "We have used Chateau several times this year and will continue to do so at about 4,000 cases per setup. They give us a functional line cheaper than the current cost of interest and the bottling cost is in the right ballpark."

WINE LINE

Wine Line has a 32-foot trailer pulled by their own tractor, with the option of the winery providing 220V, 3 phase, 30 amp power, or the Wine Line can run their own diesel generator at a small increase in cost.

Wine Line equipment includes: Seitz Tausch-Stella bottle washer-sterilizer, Seitz Fulla vacuum filler, Seitz Fulla vacuum corker, Ottosick capsule spinner, Krones Rotina labeler and sterile filtration system.

Below are comments from satisfied Wine Line customers:



Empty cases after having their bottles dumped, slide down the track to receive the bottled wine at the end of Wine Line.

EDUCATION

This article begins a regular feature on colleges and universities offering study in enology and/or viticulture throughout the United States.

Dr. Carlos J. Muller, head of the Enology program at Fresno State, is very happy with administrative changes that occurred with this academic year. His staff is now part of the Department of Enology, Food Science and Nutrition.

"We are going to be able to make a lot of changes in our program, facilities, curriculum and personnel. We will be able to offer more varied courses in aspects of enological training," says Muller. Staff, students and administration are working on the changes in a strongly integrated team effort.

Dr. Muller arrived at Fresno in January of 1979. His education includes bachelors and masters degrees from UC Davis in Food Science, a doctorate at Davis in Agricultural Chemistry, and post doctorate work at Davis in enology. Dr. Muller says all that education makes him a enological biochemist.

Fresno's program emphasizes transfer of technology. "We don't have students, we have junior colleagues," adds Dr. Muller. The students are encouraged to make wine on campus in batches of five to 100 gallons, using campus grapes or from any vineyard. Wine appreciation is stressed by frequent tasting programs.

Of the 64 present graduate and under graduate students, many are seeking a second career after bachelors or masters work in other fields. Some students do study at UC Davis either before or after study at Fresno.

Fresno participates in a cooperative research program under Ken Fugelsang with Dr. Ralph Kunkee at UC Davis.

Update on Fresno State

Dr. Muller and Dr. Webb at UC Davis envision a joint clearinghouse for graduates in employment in the near future.

In March of 1981 the Fresno Wine Extravaganza, a food and wine tasting, was held with 79 wineries participating. Proceeds from the event went to five-one year tuition and books scholarships at CSU-Fresno. The event will be repeated in March of 1982.

Dr. Muller noted their newest equipment addition is a gas chromatograph capable of pesticide residue analysis, set up next to their two research grade gas chromatographs.

Vincent Petrucci heads the viticulture unit at Fresno which has over 100 acres of vineyard adjacent to the campus. The viticulture program is part of the Department of Plant Science. Petrucci oversees several interesting research projects, that Practical Winery hopes to report on in future issues.

CHAMISAL, Scott Boyd: "We bottled 863 cases this year and hope to do 1,500 next year. They offer us state of the art equipment at low cost. We don't have to tie up floor space with a bottling line. The interest payments (not counting principal) on a bottling line would be greater than the Wine Line cost. Wine Line has been very responsive and attentive to my concerns."

CONGRESS SPRINGS, Dan Gehrs: "Wine Line gives us real savings on labeling and capsuling! They charge 10 cents a case to label, it costs me 75-80 cents on my labelette. They capsule for 5 cents, which would cost me 40-50 cents. Wine Line gives us a sterile bottling line which we must have for our wines. Wine Line is self-powered. We don't have that much power."

HAYWOOD WINERY, Peter Haywood: "They give us high quality equipment and they maintain it. We bring them in for at least a day's production."

SHENANDOAH VALLEY VINEYARDS, Ed Baldinelli: "We bring them up here two or three times a year for at least 1,000 to 2,000 cases. They do a good job."

PAGE MILL WINERY, Dick Stark: "Our winery capacity is 1,800 cases. We don't have the necessary power, so the self-powered Wine Line comes up for 1,000 cases twice a year. We are happy with the line."

How to Order a Wine Label

What goes into the process of putting a wine label onto a bottle? Practical Winery offers the following summary of details as a reference guide.

You may choose an artist to develop your design and then find a printer who can product it. Some printers have their own art staff who can create your design. You must allow sufficient time for art preparation, label approval and printing before the label goes on the bottle.

The labeling equipment you will use, requires either glue or pressure sensitive labels. You must choose a printer who can produce your type of label.

Your artist must know the capabilities of your labeling equipment. Tell the artist the shape of your bottle. Label options include: one wrap-around label, front and back panels and neck label.

Do your bottles have a release coat-either graphite or silicone? This will affect your choice of paper and glue. How about the humidity at your bottling site? This is one aspect of the chemical relationship between the label paper and glue — paper is water base, glue may be oil or water base.

The mechanical capability of your labeler will dictate the choice of a square label or a die-cut shape.

Choice of color includes both the paper as well as inks. The labeler and glue may allow you the choice of embossing and/or foiling or bronzing.

Varnish is usually applied to the label to protect the printed image from scuffing or chipping in handling. There are some wet-strength papers which may reduce possible water damage in the ice bucket.

Paper choices include: textured, glossy, dull-coated, estate papers and more. Weight and grain are two more.

You will find in this issue, a list of artists and printers in Northern California who have experience with wine labels. The editor would appreciate any more recommendations of printers or artists, to give the winemaker a more complete listing of such talent.

Fruit Bin Dumper at Obester Winery

Paul Obester at Obester Winery in Half Moon Bay, California has built a fruit bin dumper to handle his growing crushing demands.

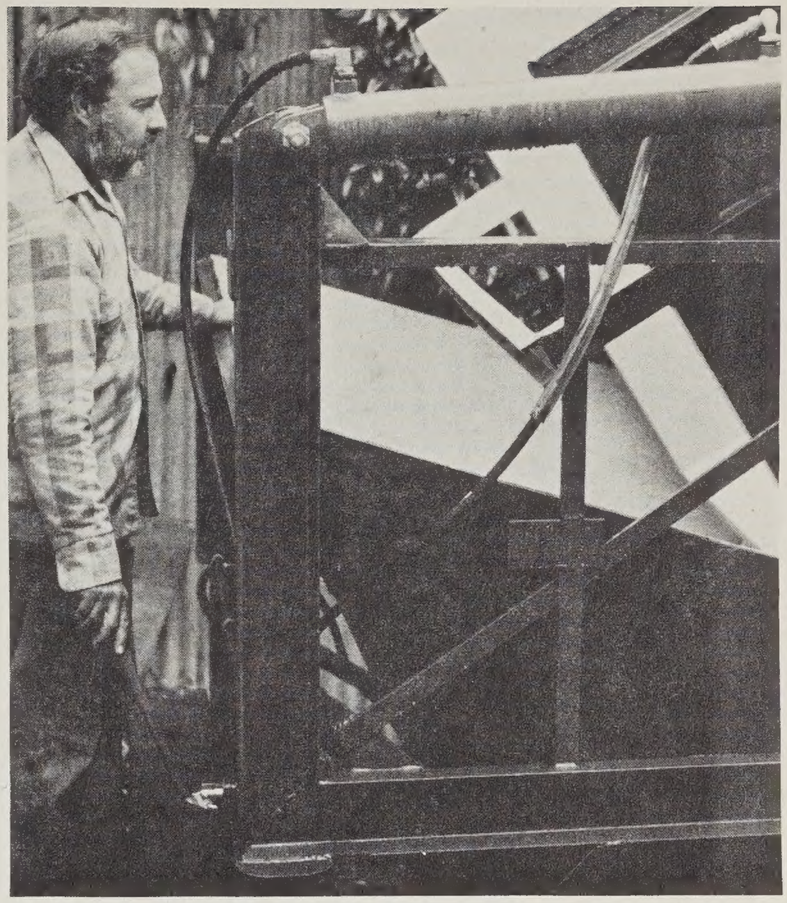
Obester has a six ton/hour Zambelli crusher and stemmer, which in 1979 he was feeding with 40 pound lug boxes of grapes by hand. He was also field crushing, but believed there had to be a faster way.

During the 1980 harvest, Obester rented a fork lift with a special forward bin dumping device. Growers brought in their field boxes which measured four feet by four feet by two feet or four feet in height. The rented fork lift dumped the field boxes into the crusher and stemmer successfully.

The rental of the forklift over the two month harvest period was $2,000. Obester found an old bin dumper device at a cannery in San Jose, reconditioned it, replacing the hydraulic pump and ram, and building a base, all for under $2,000.

During the 1981 harvest, the dumping unit worked perfectly. On one day, a truck with 12 tons, 24 boxes of grapes was crushed in under two hours using a forklift to feed the dumping device.

The setup can handle up to one ton loads and boxes either 18, 24, or 48 inches high.



Paul Obester shows position of operator of bin dumper to control flow of grapes by hydraulic control and inspect grapes for foreign contamination.

Jekel Uses Economical Construction Methods to Obtain Efficient Design

Practical Winery went to Greenfield to see the finished product of modern construction techniques which produced Jekel Vineyard's facility.

"We wanted a barn-like image to fit into the agricultural environment," said Bill Jekel, co-owner of the winery. "We used economical construction ideas to achieve our functional design," Jekel added.

Pictured on the cover of this issue, is the winery building constructed in 1978. The walls are double metal skin with eight inches of insulation on a metal frame. The ceiling has another inch of vinyl clad compressed insulation, in addition, to achieve R24 throughout the building.

In 1981, the warehouse for casegood storage and possible barrel aging was built. The walls and insulation are identical to the first building, but applied to a pole barn frame which resulted in a 60 × 100 foot clear span working space.

The contractor reported the 1981 actual building cost at $13.50 per square foot. Construction on the new warehouse took 60 days, in part, due to the trusses being prefabricated.

The roofline of both buildings peaks at 19 feet. Forty-eight inch eaves surround the winery building to keep the sun off the exterior walls during the hottest part of the day. The warehouse has 36 inch eaves.

The barrel storage area of the winery building is cooled by a glycol refrigeration unit under the ridge of the roof. The warehouse is cooled by an automatic ventilation system. The system has a fan at each end of the building under the peak of the roof which, during the coldest two hours of the night, draws in outside air through louvred vents located in the walls at ground level.

Several windows are in the walls and roof of the winery to utilize natural lighting. The Jekels obtained used mercury vapor lamps for cool and energy efficient night lighting. Fluorescent light tubes are in the warehouse.

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HENRY J. BREUER ASSOCIATES, 915 E. Blithedale Ave., Mill Valley, CA. 94941 (415) 383-8338.

COLONNA, CALDEWEY, FARRELL, 1335 Main Street, St. Helena, CA. 94574 (707) 963-2077.

DESIGN LAB, 7 Fourth Street, Suite 37, Petaluma, CA. 94952 (707) 763-1448.

IMAGES UNLIMITED ADVERTISING, 202 Main St., St. Helena, CA. 94574 (707) 963-2344.

OASIS GRAPHICS, 1801 Old Sonoma Rd., Napa, CA 94559 (707) 252-8422.

JAMES STITT & CO., The White Heron, 1001J Bridgeway, Sausalito, CA. 94965 (415) 331-3114.

MITCHELL WHITELY ASSOCIATES, 716 Montgomery, San Francisco, CA. 94111 (415) 398-2922.

CASE-GOOD STORAGE

SONOMA COUNTY VINTNERS CO-OP, 7675 Conde Lane, Windsor, CA. 95492 (707) 838-6678.

TEMP TROL, 377 McCormick, St. Helena, CA. (707) 963-1407.

WINE SERVICE CO-OP, 1150 Dowdell Lane, St. Helena, CA. 94574 (707) 963-9474.

WINE LABEL (GLUE) PRINTERS

ABEL PRINTING, 821 Santa Rosa, Santa Rosa, CA. 95404 (707) 545-3300.

CALISTOGA PRESS, 1316 Lincoln Ave., Calistoga, CA. (707) 942-6033.

GORDON GRAPHICS, 15 Digital Drive, Ignacio, CA 94947 (415) 883-0455.

HERDELL PRINTING, INC., P.O. Box 72, St. Helena, CA. 94574 (707) 963-3634.

SCHIECK PRINTING, INC., 497 Walnut, Napa, CA. (707) 252-1212.

WINE LABEL (PRESSURE SENSITIVE) PRINTERS

LORD LABEL and MFG. CO. of CALIFORNIA, 912 Mendocino Ave., Berkeley, CA. 94707 (415) 658-6003.

WINE LABEL (GLUE) PRINTERS (with artist/designers)

BLAKE PRINTERY, 2222 Beebee St., San Luis Obispo, CA. 93401 (805) 543-6843.

fp LABEL COMPANY, INC., 219 Ryan So. San Francisco, CA. 94080 (415) 873-9456.

NORTHWESTERN GRAPHICS, 1314 Petaluma Hill Rd., Santa Rosa, CA. 95404 (707) 545-4010.

WINERY COMPUTER SERVICES

DATAVINE, 3022 St. Helena Highway North, St. Helena, CA., 94574 (707) 963-5261.

DATA CONSULTING ASSOCIATES, INC., 18000 Coleman Valley Road, Occidental, CA. 95465 (707) 874-3067.

DATAMASTERS COMPUTER SERVICES, 2330 Butano Drive, Suite 201, Sacramento, CA. 95825 (916) 485-0159.

RICHARD GULSON & ASSOCIATES, P.O. Box 146, Kenwood, CA 95452 (707) 833-6931.

MARC FOGG SOFTWARE, 1216 Upper Happy Valley Road, Lafayette, CA. 94549 (415) 931-6019.

TANK PRESS

THE COMPLEAT WINEMAKER, 1201 Main St., St. Helena, CA 94574 (707) 963-9681.

MOFFETT CO., INC., 6985 Via del Oro A-5, San Jose, CA. 95119 (408) 578-4910.

SWK MACHINES INC., 3095 Kerner Blvd., Suite G, San Rafael, CA. 94901 (415) 457-5155.

VALLEY FOUNDRY & MACHINE WORKS, 2510 S. East Avenue, Fresno, CA. 93717 (209) 233-6135.

WINE AND THE PEOPLE, 907 University Ave., Berkeley, CA. 94710 (415) 549-1266.

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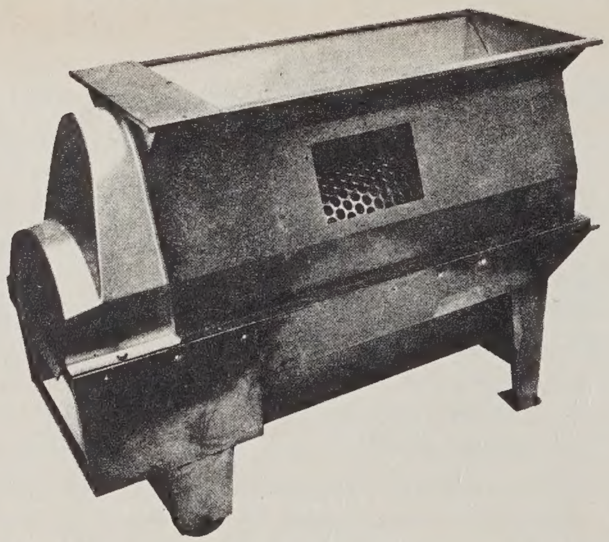

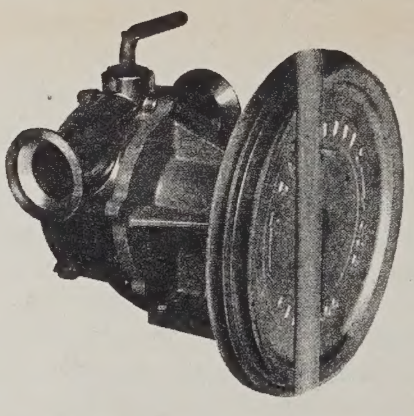

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